Gengfeng Zheng

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3259193/publications.pdf

Version: 2024-02-01

108 papers	16,474 citations	31902 53 h-index	27345 106 g-index
111 all docs	111 docs citations	111 times ranked	17722 citing authors

#	Article	IF	Citations
1	Multiplexed electrical detection of cancer markers with nanowire sensor arrays. Nature Biotechnology, 2005, 23, 1294-1301.	9.4	2,249
2	Electrical detection of single viruses. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14017-14022.	3.3	1,208
3	Reduced Mesoporous Co₃O₄ Nanowires as Efficient Water Oxidation Electrocatalysts and Supercapacitor Electrodes. Advanced Energy Materials, 2014, 4, 1400696.	10.2	852
4	Boron-Doped Graphene for Electrocatalytic N2 Reduction. Joule, 2018, 2, 1610-1622.	11.7	774
5	Fabrication of silicon nanowire devices for ultrasensitive, label-free, real-time detection of biological and chemical species. Nature Protocols, 2006, 1, 1711-1724.	5.5	709
6	Enhanced Nitrate-to-Ammonia Activity on Copperâ€“Nickel Alloys via Tuning of Intermediate Adsorption. Journal of the American Chemical Society, 2020, 142, 5702-5708.	6.6	638
7	Cu, Coâ€Embedded Nâ€Enriched Mesoporous Carbon for Efficient Oxygen Reduction and Hydrogen Evolution Reactions. Advanced Energy Materials, 2017, 7, 1700193.	10.2	487
8	Single-Atomic Cu with Multiple Oxygen Vacancies on Ceria for Electrocatalytic CO₂ Reduction to CH₄. ACS Catalysis, 2018, 8, 7113-7119.	5.5	486
9	Defect and Interface Engineering for Aqueous Electrocatalytic CO2 Reduction. Joule, 2018, 2, 2551-2582.	11.7	459
10	From Water Oxidation to Reduction: Homologous Niâ€“Co Based Nanowires as Complementary Water Splitting Electrocatalysts. Advanced Energy Materials, 2015, 5, 1402031.	10.2	448
11	Synthesis and Fabrication of High-Performance n-Type Silicon Nanowire Transistors. Advanced Materials, 2004, 16, 1890-1893.	11.1	417
12	Nanoparticle Superlattices as Efficient Bifunctional Electrocatalysts for Water Splitting. Journal of the American Chemical Society, 2015, 137, 14305-14312.	6.6	377
13	Boosting CO₂ Electroreduction to CH₄ via Tuning Neighboring Single-Copper Sites. ACS Energy Letters, 2020, 5, 1044-1053.	8.8	326
14	Doping strain induced bi-Ti3+ pairs for efficient N2 activation and electrocatalytic fixation. Nature Communications, 2019, 10, 2877.	5.8	279
15	Oneâ€Dimensional Earthâ€Abundant Nanomaterials for Waterâ€Splitting Electrocatalysts. Advanced Science, 2017, 4, 1600380.	5.6	253
16	CuCo Hybrid Oxides as Bifunctional Electrocatalyst for Efficient Water Splitting. Advanced Functional Materials, 2016, 26, 8555-8561.	7.8	251
17	Coâ€“Niâ€Based Nanotubes/Nanosheets as Efficient Water Splitting Electrocatalysts. Advanced Energy Materials, 2016, 6, 1501661.	10.2	232
18	Enhancing Perovskite Solar Cell Performance by Interface Engineering Using CH₃NH₃PbBr_{0.9}I_{2.1} Quantum Dots. Journal of the American Chemical Society, 2016, 138, 8581-8587.	6.6	232

#	Article	IF	Citations
19	Superb Alkaline Hydrogen Evolution and Simultaneous Electricity Generation by Ptâ€Decorated Ni₃N Nanosheets. Advanced Energy Materials, 2017, 7, 1601390.	10.2	225
20	Aqueous electrocatalytic N2 reduction under ambient conditions. Nano Research, 2018, 11, 2992-3008.	5.8	221
21	Selective Etching of Nitrogenâ€Doped Carbon by Steam for Enhanced Electrochemical CO₂ Reduction. Advanced Energy Materials, 2017, 7, 1701456.	10.2	203
22	Carbon-Coated Co³⁺-Rich Cobalt Selenide Derived from ZIF-67 for Efficient Electrochemical Water Oxidation. ACS Applied Materials & Interfaces, 2016, 8, 20534-20539.	4.0	198
23	Efficient Electrocatalytic CO2 Reduction to C2+ Alcohols at Defect-Site-Rich Cu Surface. Joule, 2021, 5, 429-440.	11.7	194
24	Tuning of CO₂ Reduction Selectivity on Metal Electrocatalysts. Small, 2017, 13, 1701809.	5.2	182
25	Topotactic Engineering of Ultrathin 2D Nonlayered Nickel Selenides for Full Water Electrolysis. Advanced Energy Materials, 2018, 8, 1702704.	10.2	181
26	Eggâ€Derived Mesoporous Carbon Microspheres as Bifunctional Oxygen Evolution and Oxygen Reduction Electrocatalysts. Advanced Energy Materials, 2016, 6, 1600794.	10.2	177
27	Nanostructured Bifunctional Redox Electrocatalysts. Small, 2016, 12, 5656-5675.	5.2	174
28	Double sulfur vacancies by lithium tuning enhance CO2 electroreduction to n-propanol. Nature Communications, 2021, 12, 1580.	5.8	162
29	Incorporation of well-dispersed sub-5-nm graphitic pencil nanodots into ordered mesoporous frameworks. Nature Chemistry, 2016, 8, 171-178.	6.6	153
30	Oxygen Vacancy Tuning toward Efficient Electrocatalytic CO₂ Reduction to C₂H₄. Small Methods, 2019, 3, 1800449.	4.6	146
31	Designing Copperâ€Based Catalysts for Efficient Carbon Dioxide Electroreduction. Advanced Materials, 2021, 33, e2005798.	11.1	145
32	Nanostructured Copperâ€Based Electrocatalysts for CO₂ Reduction. Small Methods, 2018, 2, 1800121.	4.6	139
33	Polarization Engineering of Covalent Triazine Frameworks for Highly Efficient Photosynthesis of Hydrogen Peroxide from Molecular Oxygen and Water. Advanced Materials, 2022, 34, e2110266.	11.1	136
34	A Crystalline Partially Fluorinated Triazine Covalent Organic Framework for Efficient Photosynthesis of Hydrogen Peroxide. Angewandte Chemie - International Edition, 2022, 61, .	7.2	121
35	Oxygen vacancies enhanced cooperative electrocatalytic reduction of carbon dioxide and nitrite ions to urea. Journal of Colloid and Interface Science, 2020, 577, 109-114.	5.0	120
36	Selective CO-to-acetate electroreduction via intermediate adsorption tuning on ordered Cuâ€“Pd sites. Nature Catalysis, 2022, 5, 251-258.	16.1	118

#	Article	IF	Citations
37	Electronâ€Deficient Cu Sites on Cu₃Ag₁ Catalyst Promoting CO₂ Electroreduction to Alcohols. Advanced Energy Materials, 2020, 10, 2001987.	10.2	117
38	NbO₂ Electrocatalyst Toward 32% Faradaic Efficiency for N₂ Fixation. Small Methods, 2019, 3, 1800386.	4.6	111
39	CuCoO_x/FeOOH Coreâ€“Shell Nanowires as an Efficient Bifunctional Oxygen Evolution and Reduction Catalyst. ACS Energy Letters, 2017, 2, 2498-2505.	8.8	109
40	Aligned NiO nanoflake arrays grown on copper as high capacity lithium-ion battery anodes. Journal of Materials Chemistry, 2012, 22, 19821.	6.7	106
41	A flexible ligand-based wavy layered metalâ€“organic framework for lithium-ion storage. Journal of Colloid and Interface Science, 2015, 445, 320-325.	5.0	102
42	Enhanced N-doping in mesoporous carbon for efficient electrocatalytic CO2 conversion. Nano Research, 2019, 12, 2324-2329.	5.8	101
43	Efficient solar-driven electrocatalytic CO2 reduction in a redox-medium-assisted system. Nature Communications, 2018, 9, 5003.	5.8	97
44	Bioâ€Inspired Leafâ€Mimicking Nanosheet/Nanotube Heterostructure as a Highly Efficient Oxygen Evolution Catalyst. Advanced Science, 2015, 2, 1500003.	5.6	90
45	Bifunctional CoP and CoN porous nanocatalysts derived from ZIF-67 in situ grown on nanowire photoelectrodes for efficient photoelectrochemical water splitting and CO₂ reduction. Journal of Materials Chemistry A, 2016, 4, 15353-15360.	5.2	90
46	Nanowire arrays restore vision in blind mice. Nature Communications, 2018, 9, 786.	5.8	89
47	Electronic Tuning of Co, Niâ€Based Nanostructured (Hydr)oxides for Aqueous Electrocatalysis. Advanced Functional Materials, 2018, 28, 1804886.	7.8	87
48	Mesoporous TiO₂ Mesocrystals: Remarkable Defects-Induced Crystallite-Interface Reactivity and Their in Situ Conversion to Single Crystals. ACS Central Science, 2015, 1, 400-408.	5.3	74
49	Sub-5Ânm SnO₂ chemically coupled hollow carbon spheres for efficient electrocatalytic CO₂ reduction. Journal of Materials Chemistry A, 2018, 6, 20121-20127.	5.2	72
50	2020 Roadmap on gas-involved photo- and electro- catalysis. Chinese Chemical Letters, 2019, 30, 2089-2109.	4.8	71
51	Defective graphene for electrocatalytic CO2 reduction. Journal of Colloid and Interface Science, 2019, 534, 332-337.	5.0	66
52	Electrocatalytic Reactions for Converting CO₂ to Valueâ€Added Products. Small Science, 2021, 1, 2100043.	5.8	66
53	Electron Localization and Lattice Strain Induced by Surface Lithium Doping Enable Ampereâ€Level Electrosynthesis of Formate from CO₂. Angewandte Chemie - International Edition, 2021, 60, 25741-25745.	7.2	66
54	Dual-Atomic Cu Sites for Electrocatalytic CO Reduction to C₂₊ Products. , 2021, 3, 1729-1737.		66

#	Article	IF	Citations
55	Selective carbon dioxide electroreduction to ethylene and ethanol by core-shell copper/cuprous oxide. Journal of Colloid and Interface Science, 2019, 552, 426-431.	5.0	53
56	Achieving High Aqueous Energy Storage via Hydrogenâ€Generation Passivation. Advanced Materials, 2016, 28, 7626-7632.	11.1	51
57	2D Assembly of Confined Space toward Enhanced CO₂ Electroreduction. Advanced Energy Materials, 2018, 8, 1801230.	10.2	49
58	Lithiationâ€Enabled Highâ€Density Nitrogen Vacancies Electrocatalyze CO₂ to C₂ Products. Advanced Materials, 2021, 33, e2103150.	11.1	48
59	Electron distribution tuning of fluorine-doped carbon for ammonia electrosynthesis. Journal of Materials Chemistry A, 2019, 7, 16979-16983.	5.2	46
60	Ru-doped, oxygen-vacancy-containing CeO₂ nanorods toward N₂ electroreduction. Journal of Materials Chemistry A, 2020, 8, 7229-7234.	5.2	45
61	Mesoporous tin oxide for electrocatalytic CO2 reduction. Journal of Colloid and Interface Science, 2018, 531, 564-569.	5.0	44
62	Electrocatalytic Methane Oxidation Greatly Promoted by Chlorine Intermediates. Angewandte Chemie - International Edition, 2021, 60, 17398-17403.	7.2	43
63	Electrolyte Driven Highly Selective CO₂ Electroreduction at Low Overpotentials. ACS Catalysis, 2019, 9, 10440-10447.	5.5	41
64	Efficient CO₂ Electroreduction to Ethanol by Cu₃Sn Catalyst. Small Methods, 2022, 6, e2101334.	4.6	39
65	Purcell effect in an organic-inorganic halide perovskite semiconductor microcavity system. Applied Physics Letters, 2016, 108, 022103.	1.5	36
66	Electrochemical N2 fixation by Cu-modified iron oxide dendrites. Journal of Colloid and Interface Science, 2019, 552, 312-318.	5.0	33
67	Heterogeneous Electrocatalysts for CO₂ Reduction. ACS Applied Energy Materials, 2021, 4, 1034-1044.	2.5	31
68	Pushing the activity of CO2 electroreduction by system engineering. Science Bulletin, 2019, 64, 1805-1816.	4.3	30
69	Fast cooling induced grain-boundary-rich copper oxide for electrocatalytic carbon dioxide reduction to ethanol. Journal of Colloid and Interface Science, 2020, 570, 375-381.	5.0	30
70	Achieving Efficient CO₂ Electrochemical Reduction on Tunable In(OH)₃-Coupled Cu₂O-Derived Hybrid Catalysts. ACS Applied Materials & Interfaces, 2019, 11, 22346-22351.	4.0	28
71	Tuning Active Sites of MXene for Efficient Electrocatalytic N2 Fixation. CheM, 2019, 5, 15-17.	5.8	28
72	Hybrid palladium nanoparticles and nickel single atom catalysts for efficient electrocatalytic ethanol oxidation. Journal of Materials Chemistry A, 2022, 10, 6129-6133.	5.2	28

#	Article	IF	Citations
73	Efficient carboxylation of styrene and carbon dioxide by single-atomic copper electrocatalyst. Journal of Colloid and Interface Science, 2021, 601, 378-384.	5.0	27
74	Defectâ€Assisted Electron Tunneling for Photoelectrochemical CO₂ Reduction to Ethanol at Low Overpotentials. Advanced Energy Materials, 2022, 12, .	10.2	27
75	Lasing from lead halide perovskite semiconductor microcavity system. Nanoscale, 2018, 10, 10371-10376.	2.8	26
76	Automated in Vivo Nanosensing of Breath-Borne Protein Biomarkers. Nano Letters, 2018, 18, 4716-4726.	4.5	26
77	Highlyâ€Exposed Singleâ€Interlayered Cu Edges Enable Highâ€Rate CO₂â€toâ€CH₄ Electrosynthesis. Advanced Energy Materials, 2022, 12, .	10.2	26
78	Hierarchically tubular nitrogen-doped carbon structures for the oxygen reduction reaction. Journal of Materials Chemistry A, 2017, 5, 13634-13638.	5.2	24
79	Electrocatalytic Methane Oxidation to Ethanol via Rh/ZnO Nanosheets. Journal of Physical Chemistry C, 2021, 125, 13324-13330.	1.5	24
80	Bridged-multi-octahedral cobalt oxide nanocrystals with a Co-terminated surface as an oxygen evolution and reduction electrocatalyst. Journal of Materials Chemistry A, 2017, 5, 7416-7422.	5.2	23
81	System Engineering Enhances Photoelectrochemical CO₂ Reduction. Journal of Physical Chemistry C, 2022, 126, 1689-1700.	1.5	23
82	Electron Localization and Lattice Strain Induced by Surface Lithium Doping Enable Ampereâ€Level Electrosynthesis of Formate from CO₂. Angewandte Chemie, 2021, 133, 25945-25949.	1.6	19
83	Hydroxyâ€Groupâ€Enriched In₂O₃ Facilitates CO₂ Electroreduction to Formate at Large Current Densities. Advanced Materials Interfaces, 2022, 9, .	1.9	19
84	Colloidal nanocrystals for electrochemical reduction reactions. Journal of Colloid and Interface Science, 2017, 485, 308-327.	5.0	17
85	Hydrophobically made Ag nanoclusters with enhanced performance for CO2 aqueous electroreduction. Journal of Power Sources, 2020, 476, 228705.	4.0	17
86	In situ formed Co clusters in selective oxidation of Î±-C H bond: Stabilizing effect from reactants. Molecular Catalysis, 2019, 470, 1-7.	1.0	16
87	Steric effect induces CO electroreduction to CH₄ on Cuâ€“Au alloys. Journal of Materials Chemistry A, 2021, 9, 21779-21784.	5.2	16
88	Oneâ€dimensional Nanomaterial Electrocatalysts for CO₂Fixation. Chemistry - an Asian Journal, 2019, 14, 3969-3980.	1.7	15
89	Electrochemical Methane Conversion. Small Structures, 2021, 2, 2100037.	6.9	15
90	Atomic-Level Copper Sites for Selective CO₂ Electroreduction to Hydrocarbon. ACS Sustainable Chemistry and Engineering, 2021, 9, 13536-13544.	3.2	14

#	Article	IF	Citations
91	Transition metal oxide hierarchical nanotubes for energy applications. Nanotechnology, 2016, 27, 02LT01.	1.3	13
92	Promoting N2 electroreduction to ammonia by fluorine-terminating Ti3C2Tx MXene. Nano Convergence, 2021, 8, 14.	6.3	13
93	Lithium Vacancyâ€Tuned [CuO₄] Sites for Selective CO₂ Electroreduction to C₂₊ Products. Small, 2022, 18, e2106433.	5.2	13
94	Recent advances of metal nanoclusters for aerobic oxidation. Materials Today Nano, 2020, 11, 100080.	2.3	11
95	Promoting electrocatalytic carbon monoxide reduction to ethylene on copper-polypyrrole interface. Journal of Colloid and Interface Science, 2021, 600, 847-853.	5.0	11
96	Unraveling and tuning the linear correlation between CH4 and C2 production rates in CO2 electroreduction. Science Bulletin, 2022, 67, 1042-1048.	4.3	11
97	Photocatalytic CO₂conversion: from C1 products to multi-carbon oxygenates. Nanoscale, 2022, 14, 10268-10285.	2.8	11
98	Electrochemical nitrogen fixation via bimetallic Sn-Ti sites on defective titanium oxide catalysts. Journal of Colloid and Interface Science, 2021, 588, 242-247.	5.0	9
99	A Crystalline Partially Fluorinated Triazine Covalent Organic Framework for Efficient Photosynthesis of Hydrogen Peroxide. Angewandte Chemie, 2022, 134, .	1.6	9
100	Electrochemical conversion of C1 molecules to sustainable fuels in solid oxide electrolysis cells. Chinese Journal of Catalysis, 2022, 43, 92-103.	6.9	8
101	Chlorine-doped carbon for electrocatalytic nitrogen reduction. Molecular Catalysis, 2020, 492, 111029.	1.0	7
102	Unconventional morphologies of CoO nanocrystals via controlled oxidation of cobalt oleate precursors. Chemical Communications, 2018, 54, 3867-3870.	2.2	6
103	Electrocatalytic methane oxidation to formate on magnesium based metal-organic frameworks. Journal of Colloid and Interface Science, 2022, 623, 348-353.	5.0	6
104	Unconventional mesoporous single crystalline NiO by synergistically controlled evaporation and hydrolysis. Journal of Materials Chemistry A, 2017, 5, 23840-23843.	5.2	5
105	Multiplexed Electrical Detection of Single Viruses. Materials Research Society Symposia Proceedings, 2004, 828, 97.	0.1	4
106	Precise tuning of heteroatom positions in polycyclic aromatic hydrocarbons for electrocatalytic nitrogen fixation. Journal of Colloid and Interface Science, 2020, 580, 623-629.	5.0	4
107	Electrocatalytic Methane Oxidation Greatly Promoted by Chlorine Intermediates. Angewandte Chemie, 2021, 133, 17538-17543.	1.6	4
108	Parallel and Complementary Detection of Proteins by p-type and n-type Silicon Nanowire Transistor Arrays. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	0